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PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 1 1926

REPORT FOR WEEK ENDING MAY 1, 1926.

HAVRE:

The past week was warm with several windy days and no precipitation. Both the temperature and wind velocity were above normal for this season of the year. Very little soil blowing occurred on the station land that had been cultivated this spring. Winter rye and winter wheat show some injury to the leaves.

Early seeded spring grains are through the ground and show good stands. Domestic grasses are growing but native grasses need showers before there will be much growth. Winter rye is shooting and needs moisture. Winter wheat injury from soil blowing was not as serious as seemed apparent. Stands are the best since 1916.

All small grains, peas, as well as sweet clover and grasses, were seeded on the rotations during the week. Miscellaneous tests with small grains were also seeded. Germination should be good on fallow and corn land but, as spring plowing is drying rapidly, it is doubtful whether or not good stands will be secured on this method.

Commercial fields of wheat and oats on dry land were seeded during the week and the irrigated fields prepared for seeding.

Conifer stock was received from Mandan and a small shelter belt planting was made. This is located near the buildings.

Seeding in this part of the state is progressing rapidly. Some of the early seeding is up. With the dry weather, some farmers have stopped seeding until rain occurs.

Maximum temperature, 85; minimum, 29; precipitation, 0.0

JUDITH BASIN:

Aside from one cool, cloudy day, the weather has continued unusually warm and dry. The hot weather during the last ten days has been very injurious to winter wheat, and many fields are being reseeded. It is estimated that around 40 percent of the winter wheat in this locality has been killed out. The extent of winter injury is reported to be even greater further west, but in the extreme eastern and southeastern part of the Judith Basin very little winterkilling has taken place.

Judith Basin, continued:

Winter wheat an rye on the rotations have not been making the normal amount of growth, and about five plats will have to be reseeded. Boxelder, poplar and caragana are almost in full leaf, and in the experimental orchard, chokecherries, sandcherries, gooseberries and a few varieties of plum are commencing to blossom.

All small spring grain plats on the rotations have been prepared for seeding. A few varieties of plums and apples were set out in the experimental orchard, but planting of the remainder of the trees is being delayed until more favorable weather is received. Plowing of a 50 acre field has been completed, and with favorable weather, the seeding of all small spring grain on the station should be finished by the end of next week.

Mr. L. Vinke, of the Montana Experiment Station, visited the station during the middle of the week.

Maximum temperature, 79; minimum, 32; precipitation .06 inch.

HUNTLEY:

Good growing weather has prevailed during the past week and all crops have made the most of it. Small grains sown previous to this week have all emerged with excellent stands. Flax is beginning to come up but a full stand is not yet in evidence.

Winter wheat plats were all double disked, harrowed, and reseeded to Marquis wheat as it was apparent that the thin stands of the former crop surviving the "blow" of March 23 could not compete with the weeds which were coming up thickly. Roads and miscellaneous plats have been cultivated to check weed growth and the preparation of land for corn is now under way.

Maximum temperature, 88; minimum, 29; precipitation, .0.

SHERIDAN:

Weather has continued quite favorable for field work, but it has been rather warm for the season a large part of the time and there has been considerable wind during the day. Grass land is getting quite dry and rain also is needed for the later seedings of grain. Seeding in general is well advanced for the season. All vegetation is making a fair growth, but slight damage to small grain from soil blowing has been noted.

Sheridan, continued:

A field of barley for feed was prepared and seeded during the week. Plats for flax in the rotation field were prepared for seeding with the exception of a harrowing to be done just before seeding. Plowing for corn and miscellaneous later crops is in progress. Alleys in the rotation field were cultivated and also the shelterbelt and orchard.

Maximum temperature 85, minimum 25; precipitation, Trace.

MANDAN:

Agronomy

Another week of high winds and no rain has passed. Soil blew badly on one or two days. Two series of plats were plowed for forage crops. These are now usually plowed until later, but there was danger of blowing.

Wheat and oats are coming up in the rotations on part of the plats. When the crops were seeded, the soil was so dry that it did not seem that germination could take place without a good rain.

Barley is being seeded in the rotations today. Fifteen acres of oats were seeded in Field P for feed.

Some of the old plats of forage crops, crested wheat grass and brome grass, have been trimmed down in size in order to make room for new plantings and to make all plats uniform in size.

Germination of seed corn shows it to be running about 95 per cent.

Maximum temperature 89, minimum 30; precipitation .09 inch.

Cooperative Grazing Experiment

Native vegetation is making very slow growth. The bromegrass pasture also shows little growth. Sweet clover is just starting.

The cattle (77 head) for the grazing experiment will be delivered at the pasture today. The dam in the reserve pasture contains plenty of water to carry the cattle for some time. This water came from the snowfall in January.

The grazing experiment will not start until about the middle of the month.

Mandan, continued:

Arboriculture.

Shipment of trees to shelterbelt cooperators has been completed. Russian olive seed was planted April 29. Boxelder April 30, Ash May1. On account of the dry condition of the surface soil, preparations are being made to irrigate before planting caragana.

Horticulture.

With the exception of the nursery, tree planting is now almost completed in the field. The weather has been dry and windy, and generally unfavorable for this work. It may be necessary to irrigate the nursery before planting.

The first spraying of the year has been completed. A combination spray of lead arsenate and lime sulphur was used.

Fruit trees are now starting to bloom, and it is planned to do some crossing work in the field.

It is still too early to judge the amount of winter injury, but it is thought that there will not be nearly as much winter killing as was the case last year.

All transplanting and potting up of plants to be used for ornamental and vegetable projects for the season has been completed.

Work in caring for shrubbery, perennial flower borders and lawns, on the grounds proper, has been in progress during the week.

The double flowering plum (P.triloba) is beautiful at the present time. If it were not for the fact that the flower buds are liable to winterkill, this large shrub might well take the place of Japanese cherries for northern states.

The asparagus plots are coming into yield. Seemingly the prevailing drought has not affected this succulent vegetable to any appreciable extent as yet. The tips are abundant and of good size.

BELLE FOURCHE:

The weather during the past week was warm and dry. The total precipitation for April was only .10 inch. Prairie grass and alfalfa are growing rapidly, but alfalfa is already beginning to show the need of water. The irrigation season will begin within the next week unless heavy rains come. Practically all sugar beets on the project will need to be irrigated up as the surface soil is too dry for the germination of shallow seeded crops.

The small grains are making good growth. A few plats were injured slightly by soil blowing last week but these have almost entirely recovered. Good stands were secured on all except the spring plowed plats, and most of them show a fair stand.

The plat of sweet clover in rotation 11 winterkilled about 75 percent. Most of the plants seemed to be alive this spring but were in a very weakened condition and were not able to resume growth after being damaged by soil blowing.

The maximum temperature for the week was 89. This equals the extreme maximum for April. Minimum temperature 24. There was no precipitation.

ARDMORE:

Precipitation for the fall and winter months at this station was somewhat above normal. The total amount of rain and melted snow from October 1, 1925 to March 31, 1926 was 4.73 inches. This may be compared with the precipitation for the same period a year ago which was 3.16 inches, and with the 13-year normal which is 3.45 inches. The total snowfall during the winter was 41.0 inches. This came in many small storms, and the largest amount that fell during any one month was during January. During this month the snow drifted badly due to high winds. With the exception of isolated drifts the ground was bare during most of the winter.

The winter months were exceptionally warm. The minimum temperature was 13 degrees below zero on January 23. There were only four days during this month when the temperature was as low as zero, and no zero weather was recorded during February. The winter was so mild throughout that volunteer small grain, especially barley, did not winterkill.

Ardmore, continued:

The spring opened very early. First field work on the station was done on March 16, but farmers in the neighborhood had been at work in their fields prior to that date. Seeding of fields of barley and oats was started on March 16. Field operations were not interrupted because of weather conditions until the first week in April, when there were several days of stormy weather with some snow and rain; the total amount of which was of little consequence. Rotation plats of small grain were seeded on April 14, which was about the normal date for seeding these plats.

The month of April was unusually dry with frequent high winds. Considerable damage was done by soil blowing. The total precipitation during the month was .49 inch, which fell on seven separate days. This was the least amount of precipitation recorded during the month of April in the history of this station. The nearest approach to this amount was in 1921 when the April precipitation was only .52 inch. The 13-year mean for the station is 2.27 inches. The surface of the ground has been unusually dry all spring. Soil moisture determinations on plats that were cropped last season show moisture available for plant use to a depth of only about 18 inches.

Winter wheat started growth early in the season, and the stand appeared to be satisfactory; however, the rotation plats of this crop were finally destroyed by soil blowing. The most damage from this cause was on April 23. The plats have been re-seeded with spring wheat.

Native vegetation started growth unusually early. Western blue grass, prairie June grass, sedges and many weeds were making a noticeable growth by March 15, -about 15 days earlier than normally. First growth of Western wheat grass was noted on April 4. In spite of the early start all grasses have been much retarded in growth, because of cold weather the first week in April, and dry weather since then, until at present the native vegetation is not up to normal growth.

The effects of the dry spring upon alfalfa is particularly noticeable, and the prospects for this crop are now very poor.

There has been no precipitation during the past week.

ARCHER:

The first three days of the week were warm and pleasant. During the night of April 20 a heavy rain occurred with a total of 0.82 inch of precipitation. Following this rain the weather was squally and cold. Today is bright with a rising temperature.

The breaking of sod has continued during the week when the weather would permit. Most of this land has been double-disked. The rain stopped the plowing of the Dry-Land plats. Only four plats in the established rotations remained to be plowed. The seed for most of the plats and fields has been prepared.

The dairy cows were turned out to pasture April 21. The grass is farther along than it has been for several years.

A new evaporation tank was installed April 21. The old tank was so badly rusted that it proved unreliable.

Maximum temperature 71, minimum 28; precipitation .83 inch.

AKRON: Week ending April 17.

The weather has been warm and winter wheat has made slow but appreciable progress. There is moisture in the soil but not such a quantity as to enable the wheat to stool and hide the ground.

Field work progressed satisfactorily. The Rotation and Sheep Rotation corn plats were plowed and packed. A small area of Colburt and of Kanota oats was seeded on bean ground for increase. Small areas of White Smyrna barley and of White Smyrna barley Selection 05 were seeded on fallow for increase. The White Smyrna carries C.I. No. 2642.

Professor Morton and Mr. E. J. Maynard, of the State College, visited the station on Thursday.

Maximum temperature 78, minimum 27; precipitation 0.

AKRON:

High winds and soil drifting characterized the past week. Monday there was a hard wind from the southeast which held sway all day, causing moreor less soil movement in this particular region. Tuesday the wind was heavy, this time from the northwest. Saturday, all day, another heavy northwest wind, during which streams of soil came onto the station from commercial fields to the west and north. Were it not for the trees and the new woven wire fencing on the north and west, it is doubtful if the station soil could have been held without wholesale listing of experimental plantings. The west fence line, acting as a trap, has accumulated some 18 inches of soil.

ARCHER:

During the past week the weather has been very favorable for spring work. All Dry Land plats have been plowed, harrowed, and duckfooted. The plowing of 51 acres of sod in the south pasture has been completed. The corn land in Series I, J, K, and L is plowed and other plowing is in progress. The new Dry-Land rotations have been staked and tillage on these is complete. Work on the addition to the milk house is nearing completion.

Dean J. A. Hill and Director W. L. Quayle visited the station today.

Maximum temperature , 74; minimum, 26; precipitation, 0.05 inch.

Akron:

April passed with but .18 of an inch of rainfall. Despite the low April rainfall winter wheat has held its own well, and satisfactory stands of spring sown small grains have been secured. Winter wheat to date has not stooled heavily and it is likely therefore that the head covering will be light should sufficient rain be received from now on to mature a crop. On the station winter wheat has not attained growth enough to hide the ground across the two-acre fields of the Sheep Rotation Project. With a week of quiet, it would seem that the greatest danger from soil blowing is now past. Considerable acreage of winter wheat in this immediate neighborhood has been blown out. The heaviest damage on the rotation block is on the M-C Series. The wheat on this series of plats was damaged the first wind storm and has never recovered. The soil has not blown badly since, having been harrowed immediately after this first storm. The next heaviest damage has been to the wheat on the M-F Series, and on the Rate-And-Spacing Corn Ground. On these two projects the wheat seems to be recovering but promises to be thin.

Weeds are springing into growth and volunteer winter wheat is showing badly on the rotation plats. It was necessary to disk some of the Rotation fallow plats to destroy volunteer wheat, so all the fallow plats were disked. The Cereal Plat roadways were trimmed and the remaining wheat duck-foot cultivated out of the roadways. The sweet clover plats of Rotations 31 and 32 and the alfalfa plats of Rotation 42 were reseeded and the seed harrowed into the ground. The harrowing also destroyed many small weeds.

The past week has been very warm and today a storm is threatening.. With warmer weather the need for moisture will become more acute.

Maximum temperature 85; minimum, 27; precipitation, .10.

NORTH PLATTE:

Another week has passed without rain. April closes with a total precipitation of .47 inch, which is 22 per cent of the normal of 2.15 inches. The precipitation for the year to date is 1.35 inches or 35 per cent of the normal of 3.89 inches.

Another destructive wind occurred on the 27th. Other days of the week have been comparatively calm. Fields which have been repeatedly cultivated to check soil blowing are so dry to the depth worked, that cultivation now has but little effect. In Field 41, which receives some protection from the grove on the north and where the plats are drilled east and west, spring grains are standing up fairly well. In Field 49, where drilling is north and south, and where there is considerable plowed land adjacent, a great deal of damage has been done. Of the 30 winter wheat plats in this field 19 were reseeded to spring wheat on the 26th. Spring grains are not making any headway, but Russian thistles are doing a thriving business.

Evaporation during the last 15 days totals 3.695 inches. This is 71 per cent of the average for the month of April. For the entire month, evaporation is about normal as the first half was low on account of low temperatures.

Minimum temperatures reached 26 and 28 degrees, respectively, on the bench and table on the 27th, causing considerable injury to fruit. A maximum temperature of 90 degrees was reached on the 30th.

Nebraska Bulletin 213, "Spring Grains, Time of Seeding and Comparative yields" at North Platte, came from the press this week.

COLBY:

Winter wheat on fallow and on most of the corn stubble fields continues to look good. There are a few dry spots beginning to show in the summer-tilled fields, however. Winter wheat on land cropped the year previously is beginning to show quite thin on most fields and it is doubtful if a rain now would help it any, if at all. The spring sown small grains are growing now but they cannot be expected to hold out so very long if a rain of consequence does not come soon.

Colby, continued:

Total rainfall for April was 0.87 inch. This compares with a thirty-nine year average for April of 2.16 inches. The precipitation for April this year is the lowest April precipitation since the Station weather records have been kept. The deficiency of yearly rainfall to date is 1.88 inches. The evaporation for April while higher than normal was not excessive. The evaporation for April was 5.247 inches.

Cherry trees are in full blossom. The crab apple trees are also in blossom. There are not so many blossoms on the crabapple trees as usual.

Work the past week has consisted of levelling roads, working alleys, levelling listed plats and levelling listed fields that go into corn and sorghums, disking fields and a few plats that are to be summer fallowed, and miscellaneous roads were worked.

GARDEN CITY:

Another dry week has just passed. Winter wheat is needing moisture badly. The lower leaves are turning brown and the plants are rolling during the day.

Spring plowing was completed early in the week. All spring plowed, fall plowed and fallowed plats were spring tooth harrowed. The M. C. C. plats were disked this morning.

Maximum temperature, 85; minimum, 30; precipitation, 0.

DALHART:

The past week has been very favorable for field work. One day was quite windy but no soil blowing occurred. No precipitation was recorded during the week. The days have been rather cool until the 30th, which warmed considerably.

During the week the plats were plowed and harrowed for the first date of planting of grain and forage sorghums and cotton. The planting was made in good shape without delay, on May 1. Moisture conditions are very favorable but the soil is still cold. All seeds planted were previously treated with copper-carbonate which should assist in increasing germination.

Two plows have been going all week. This has made a big hole in the plowing program. Plats which were fall plowed are being prepared for planting today. The field cultivator was used on all fallows this week in order to kill the growth of early weeds which had started.

Dalhart, continued:

Winter wheat and rye are making good headway. There is quite a difference in the growth of rye on the C. C. methods. Plat A is about 10 inches in height, plat B about 20 inches and Plat C about 24 inches. The rye is heading but has not reached full heading. Winter wheat is about 18 inches high but has not begun to head. The prospects for wheat are better than rye at this writing. Oats are not making so much headway as the winter wheat and rye. Not much headway was made during this past week.

Maximum temperature, 80; minimum, 38; precipitation, none. Wind velocity about normal.

TUCUMCARI:

Optimum soil and weather conditions the past week have made it possible for field work to progress rapidly. The stalk cutter was run over stalk fields on which stalks had been too tough to permit of earlier cutting; practically all increase was covered with the field cultivator, preparatory to plowing or listing; and the land previously plowed was harrowed.

On this date the May 1 date of planting test plats with sorghums were planted, as were the cotton date plats and a plat of broadcast Sunrise kafir. Soil moisture conditions are exceptionally favorable, although the ground is cold, due to unusually cold weather the past two months.

No planting other than the May 1 date has been done, for it is thought germination will be better after the soil becomes warmer. Plowing has been purposely delayed for the reason plowed land seems to dry very fast--in the past best success has been by following planting soon after plowing. Next week it is planned to lister plant some kafir and cane increase, as well as start the plows on the rotation plats.

Wheat and rye are jointing and many heads are showing. Farmers have been planting corn for a week and will soon be planting kafir and milo.

Maximum temperature, 80; minimum, 41; precipitation, 0.09 inch. Evaporation 1.319 inches. Wind velocity, 5.3.

Wind velocity the past two months has been the lowest on record for this period, each month averaging 5.5 miles.

BIG SPRING:

Very little field work has been accomplished during the past week because of rainy weather and wet fields. It started raining April 28 and kept drizzling for three days. Although the total for this period was only .87 inch, it soaked up the ground so that teams could not get into the fields.

The work during this time consisted mainly of grinding feed for the cattle feeding work and in general repair work around the grounds and barn.

All varieties of the April 15 date of seeding are now up to good stands. The cotton varieties were not breaking through the crust very readily until the rain, but now they are up in good shape. The winter wheat plots are looking good at the present writing; a few more good rains should produce a fairly good crop.

Maximum temperature 81; minimum, 46; precipitation .87 inch.

LAWTON:

Weather continued cool the last two weeks with benefit to small grain crops, but conditions have not been conducive to the growth of corn or the rapid germination of early planted sorghums and cotton.

Wheat seeded September 1,, 15, and October 1 is now in the boot and just a few heads are emerging. All of the winter barley varieties seeded September 29 were in full head April 29 while those seeded October 22 are nearly in full head except Tennessee 66, Tennessee No. 3543 is showing an appreciable percentage of smut.

Grain and forage sorghums seeded April 17 were up to a stand April 28 except Sumac. Poor germination of this variety is partly due to seed of apparently weak vitality.

Hard winds have prevailed more or less of the time for a period of 10 days and this condition in connection with the growing crops has depleted the soil of moisture rapidly. Small grains and alfalfa would be greatly benefitted by rain. Spring plowed ground that has been prepared for row crops has also dried rapidly.

Some cotton was planted throughout the county during the past week and this work as well as planting of feed crops will advance with rapidity until completed.

Lawton, continued:

Station plans provide for planting a major part of the sorghums and cotton within the immediate future if the weather does not interfere.

Since the last report the temperature has ranged from 41 to 87. Precipitation for the month of April totaled 2.22 inches or 0.73 inch below normal.

WOODWARD:

The past week has been rather warm and windy, with no precipitation. Wheat over the country is making rapid growth and is beginning to show lack of moisture. Corn which was planted April 15 has emerged to a good stand. Cotton which was planted April 20 is beginning to emerge. The second date of planting of cotton and corn were planted today, May 1. Four rows each of Acala, Westex, and Oklahoma Triumph No. 44, and one row each of 13 varieties and strains of corn, were planted. Considerable listing and other preparation of fields and plats for later planting has been done. All of last year's fallows and fall-plowed plats have been spring-toothed to stop weed growth. Rye on rotations and check plats has been cut for hay.

Some grafting has been done, about 20 varieties of grapes were grafted on roots growing in the vineyard, and about 60 grafts of four varieties of persimmons grafted in a grove where we have a small cooperative variety test.

Messrs. Chilcott, Sieglinger, and Stauber left on April 30 for a visit to the Hays, Kansas, Station.

Maximum temperature 85, minimum 36; precipitation, 0.

Average hourly wind velocity, 8.9 miles. Evaporation, 1.932 inches.

NOTE:

"MEMORANDUM FOR CHIEFS OF BUREAUS, DIVISIONS, AND OFFICES:

"Under date of July 16, 1925, you were advised by a memorandum from this office that the Ford Motor Company had designated this Department as a National Fleet owner and entitled, as such, to a 25 per cent disount on Ford parts over the counter of any authorized Ford Dealer, and to a discount of 15 per cent on parts installed in in dealers' shops.

"You are now advised that the Ford Company has modified these discounts and will, in future, allow a discount of 20 per cent (25 per cent where monthly purchases average $50 or more) on parts purchased without installation. This information should be promptly communicated to all field officers operating Department-owned Ford automobiles of any type or class.

Very truly yours,

(Sgd.) Alex Mc. Ashley

Chief of Division."

96

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U. S. DEPARTMENT OF AGRICULTURE

MAY 8 1926

REPORT FOR WEEK ENDING MAY 8, 1926.
(Unless otherwise indicated)

HAVRE: Week ending May 1.

The past week was warm with several windy days and no precipitation. Both the temperature and wind velocity were above normal for this season of the year. Very little soil blowing occurred on the station land that had been cultivated this spring. Winter rye and winter wheat show some injury to the leaves.

Early seeded spring grains are through the ground and show good stands. Domestic grasses are growing but native grasses need showers before there will be much growth. Winter rye is shooting and needs moisture. Winter wheat injury from soil blowing was not as serious as seemed apparent. Stands are the best since 1916.

All small grains, peas, as well as sweet clover and grasses, were seeded on the rotations during the week. Miscellaneous tests with small grains were also seeded. Germination should be good on fallow and corn land but, as spring plowing is drying rapidly, it is doubtful whether or not good stands will be secured on this method.

Commercial fields of wheat and oats on dry land were seeded during the week and the irrigated fields prepared for seeding.

Conifer stock was received from Mandan and a small shelterbelt planting was made. This is located near the buildings.

Seeding in this part of the state is progressing rapidly. Some of the early seeding is up. With the dry weather, some farmers have stopped seeding until rain occurs.
Maximum temperature 85, minimum 29; precipitation 0.

HAVRE:

The past week was favorable for field work and seeding on the dry land is nearing completion. Wind velocity was much lower than for the previous week, also the temperatures. Fair rains were reported farther east and on the west of the mountains, but there was none in the "triangle" section.

Early seeding, especially on fallow is coming nicely but later seeding will have very uneven germination unless rain comes soon.

Havre, continued:

Grass made fair growth. Most of the trees are nearing full leaf and the cherries and plums are in blossom. Trees, especially Jack pines, are making very good growth.

JUDITH BASIN: Week ending May 1.

Aside from one cool, cloudy, day the weather has continued unusually warm and dry. The hot weather during the last ten days has been very injurious to winter wheat, and many fields are being reseeded. It is estimated that around 40 per cent of the winter wheat in this locality has been killed out. The extent of winter injury is reported to be even greater further west, but in the extreme eastern and southeastern part of the Judith Basin very little winter killing has taken place.

Winter wheat and rye on the rotations have not been making the normal amount of growth, and about five plats will have to be reseeded. Boxelder, poplar and caragana are almost in full leaf, and in the experimental orchard, chokecherries, sandcherries, gooseberries, and a few varieties of plum are commencing to blossom.

All small spring grain plats on the rotations have been prepared for seeding. A few varieties of plums and apples were set out in the experimental orchard, but planting of the remainder of the trees is being delayed until more favorable weather is received. Plowing of a 50-acre field has been completed, and with favorable weather, the seeding of all small spring grain on the station should be finished by the end of next week.

Mr. L. Vinke, of the Montana Experiment Station, visited the station during the middle of the week.

Maximum temperature 79, minimum 32; precipitation .06 inch.

JUDITH BASIN:

The weather has been cool and cloudy during the latter portion of the week, and several light rains occurred which have been of considerable benefit to winter wheat and late seeded spring grain.

Judith Basin, continued:

Seeding of all crops, except corn, on the rotations has been completed. The remainder of the nursery stock on hand for the experimental orchard was set out, and most of the trees on the conifer blocks were planted. Fencing of the dairy cattle pasture blocks is nearly completed and pasturing of the blocks has commenced.

Visitors at the station were Professor Clyde McKee and Mr. J. M. Stephens.

Maximum temperature 75, minimum 31; precipitation .41 inch.

HUNTLEY: Week ending May 1.

Good growing weather has prevailed during the past week and all crops have made the most of it. Small grains sown previous to this week have all emerged with excellent stands. Flax is beginning to come up but a full stand is not yet in evidence.

Winter wheat plats were all double disked, harrowed, and reseeded to Marquis wheat as it was apparent that the thin stands of the former crop surviving the "blow" of March 23 could not compete with the weeds which were coming up thickly. Roads and miscellaneous plats have been cultivated to check weed grwoth and the preparation of land for corn is now under way.

Maximum temperature 88, minimum 29; precipitation 0.

HUNTLEY:

The past week has been somewhat cooler with cloudy weather prevailing. Several sprinkles and two measurable showers were received, the first precipitation since the first week in April. Small grains, grass and alfalfa have freshened up considerably during the week and pastures will soon be ready for use.

The preparation of land for corn was completed early in the week and the crop is being planted today in the roations and the variety test. Corn in the pasture experiments and sunflowers in the miscellaneous rotations were planted on the 7th.

Maximum temperature 82, minimum 36; precipitation .18 inch.

DICKINSON:

One of the longest dry spells during the 33 years of record at Dickinson ended with a rain on May 6. This continued intermittently for two days with a total of 1.13 inch. It came so slowly that all of it went into the soil.

Dickinson, continued:

Before the rain there was a period of about three weeks of windy weather with high temperatures on several days. Some soil blowing occurred. Since much of the grain had not emerged the damage was less than it would have been with the crop farther along.

Pastures and grasses are very backward as a result of the dry weather. Alfalfa and sweet clover are also very short for this date. Trees and shrubbery are well along, however, as a result of the hot days. Some of the plum varieties are past full bloom and the crabapples are now in full blossom.

The stand of grains on the rotations is very spotted. The stand is good on fallow, fair on corn ground and green manure plats, very thin on most spring-plowed plats, and a failure to date on fall plowing. As a result of the moisture now in the soil the thin stands will likely thicken up soon.

Corn ground on the rotations was plowed during the week and the plats will be planted as soon as the weather permits.

Mr. J. M. Stephens visited the station on May 5.
Maximum temperature 94, minimum 35; precipitation 1.13 inches.

SHERIDAN:

A good rain fell here on the evening of the 5th. The ground was becoming quite dry, and although growing crops did not show signs of needing moisture, later seeded crops were emerging unevenly and the ground was plowing up quite dry. All crops are making a fair growth but Russian thistles are thick on many plats.

Plowing for later forage crops was completed and plowing for corn in the rotatation is now in progress. Flax was seeded in the rotation plats on the 7th. All perennial row crops were cultivated during the week.
Maximum temperature 85, minimum 36; precipitation .73 inch.

MANDAN:

Agronomy

Very hot winds occurred on the 4th and 5th, when the temperature went to 95° and 98°. This is the highest temperature recorded during 52 years in this area during the first week in May.

The long drought has been broken by ideal rains on the 6th and 7th. The rain came down slowly in several different showers, and all soaked into the ground. During the day of the 6th, .39 of an inch fell, followed by .50 of an inch on the 7th.

Small grains are looking better and those which were only partly germinated should now come through rapidly.

Barley was seeded in a feed block in the south field. Land has been prepared for seeding alfalfa and sweet clover in the Forage Crop rotations.

Plowing has started for corn in the feed fields and seed blocks. Maximum temperature 98, minimum 25; precipitation .89 inch.

Cooperative Grazing Experiment

The fence around the hay land has been repaired, and the cattle turned into the hay land. The reserve pasture was getting very short. Grass which has made very little growth should now come on rapidly.

Horticulture

Planting of fruit trees and small fruits in the orchard and nursery has been completed. The rain in the latter part of the week should give the newly planted trees a good start.

Crossing work with apples, crabs, and small fruits is in progress in the field. The warm weather in the early part of the week caused most trees and bushes to blossom out very rapidly. Cherry crosses are now ripening in the greenhouse.

Planting of vegetables is in progress. Early in the week the lawns were irrigated.

Arboriculture

Conifer seedlings for lining out in the nursery were received from the Forest Experiment Station, Cloquet, Minnesota, on May 1. Irrigation of the fields in which these conifers and caragana seed are to be planted was completed, but the recent rain has made it impossible to begin planting.

Three-hundred Jack pine and 200 Scotch pine, 4-year old transplants, were used in making replacement plantings on the edge of the specie testing block area at the extreme west edge of the station.

BELLE FOURCHE:

The first part of the week was unseasonably warm. Maximum temperatures were generally above 90. On the 5th the temperature reached 94, which is within one degree of the extreme maximum for the month. The latter part of the week was cool and rainy. A total of .95 inch of rain fell the last three days of the week. There was no run-off. This is the first rain of the year large enough to moisten the surface soil and will do an immense amount of good. Practically no shallow planted crops had germinated previous to the rain, and all spring plowed land was so dry that there was no possibility of corn germinating. Many farmers were preparing to irrigate their sugar beets to bring them up. This will now be unnecessary.

All crops are looking better since the rain. Alfalfa had almost ceased growth early in the week but has now revived.

The corn ground will be harrowed as soon as the surface is dry enough, and the plats will then be ready for planting. Some corn has already been planted on the station.

Maximum temperature 94, minimum 39; precipitation .95 inch.

ARCHER:

The weather during the week has been favorable for field work, there being but slight precipitation. A number of local showers of considerable importance have occurred but only the outer edges reached the station. There remains but little plowing to be done and seeding is getting under way.

The winter wheat survived the winter in good shape except that seeded in corn rows. This year seedings with the common drill came through the winter in good shape and really looked better than that seeded with the furrow drill. The prairie grasses have made a splendid growth. The weeds, especially the Russian thistles, have made a prompt and rapid growth and every effort is being made to kill them while young.

Maximum temperature 77, minimum 31; precipitation .10 inch.

AKRON:

Rain has been received the latter part of this week in copious amount. It started raining the evening of May 5 (Wednesday) and is still raining today (Saturday). The rain recorded to this morning was 1.78 inches. There has been but little or no run-off.

Akron, continued:

Ground was made ready and the Perennial Grass and Clover Experiment was reseeded. The perennial grass and clover nursery was being seeded when rain interfered. The rainy days have been spent cleaning out the seed storage room where soil had accumulated after the several wind storms this spring. The fruit garden broke into bloom early in the week, and was just in full rich bloom when the rain came. Many of the plum trees are dead this spring. The bloom on the plums is very spotted. The cherries bloomed en masse. Certain of the apple and crab apple varieties have scattered bloom.

It has been reported that regions to the east, which did not have the winter snow covering that this particular section enjoyed, suffered badly from the April and early spring drought. It has been reported that in sections south of Yuma that the winter wheat had burned brown. In this particular section the drought serves to hold the wheat back but there was no burning. There has been little or no spring stooling, it being possible before the rain to see ground across a two-acre field of winter wheat.

The greatest damage to winter wheat in this particular region has been from soil blowing. Close about the station approximately 50 per cent of the winter wheat acreage has been blown out.

Director Gillette, Professor Kezer, and Mr. Bliss, of the Colorado Experiment Station staff, visited the station a short while Sunday.

Maximum temperature 86, minimum 46; precipitation 1.78 inches.

NORTH PLATTE:

Adverse weather conditions reached a climax during the week. A terrific wind from the south blew from Sunday night until Thursday morning. The average velocity for the three days ending Thursday morning was 16.6 miles per hour. For the 24 hours ending Thursday morning the velocity was 21.5 miles per hour. Evaporation for the three days was 1.073 inches. A great amount of soil blowing took place.

On Thursday morning the air had a damp feel for the first time recently. Showers during Thursday and Friday totaled .65 inch on the bench and .52 inch on the table.

D. L. A. corn plats were planted May 4, 5, and 6.

A pair of young buffalo received from Wind Cave National Park during the winter were moved May 4 to an enclosure made for them in the hills south of the buildings.

COLBY:

A change in the weather conditions the latter part of the week brought cheer to the hearts of the wheat farmers. Three different drizzling rains of almost equal amounts and totaling .95 inch, fell on Thursday evening, Friday, and Saturday afternoon. These rains followed three days of high winds and one of these, Wednesday, brought considerable dust and soil blowing. Wheat, except for thinnest wheat on fallow, had begun to show very visible effects of lack of moisture and punishment by the wind. While these three showers will not last long they have immeasurably benefited the wheat and helped the working of the land for the planting of corn.

No corn has been planted on the station. It is planned to plant corn this coming week. Work during the week consisted of finishing disking of small fields, hauling manure, and miscellaneous odd jobs around the farmstead.

Corn planting in the immediate vicinity is only just commencing. This is slightly later than normal.

HAYS:

The weather has been variable, the temperature ranging from 46 to 86 degrees. During the first part the week it was dry and hot with considerable wind. During the last half of the week it has been cloudy and showery. Three showers resulted in half-inch of precipitation. The showers were very local the rain being considerably heavier at the central office than on the Dry Land Project.

During the dry, hot weather the winter wheat commenced wilting on all plats even on fallow, and on some of the plats the wheat had commenced burning considerably before the rains occurred. However, since the showers, even the poorest wheat looks good. A few more days of dry weather before the drought was broken probably would have been better for the heavy wheat on fallow and fall plowed ground, as the growth is still entirely too heavy for the amount of water now left in the subsoil. At this time there is a very marked contrast in growth on plats receiving different treatments.

The spring small grains are all looking fine. These are all making a spreading growth and as yet have not used very much of the moisture that was stored in the soil.

Alfalfa and brome-grass seeded this spring still looks very promising.

Hays, continued:

Canadian field peas are also looking fine and commencing to make vines.

Rye is about two feet high and heading. This crop burned very badly before the showers. It may be interesting to also note that wheat seeded on plats where the rye was turned under last year suffered and burned more than any other plats of wheat.

The work during the week consisted largely in preparation of row crop plats, cultivation of roads and alleys, and soil sampling. Some work was done on fallow.

GARDEN CITY:

No rain has been received during the past week and winter wheat continues to burn up. All plats on the project are now showing the need of moisture. Wheat growing on the poorer methods is practically dried up. In the date of planting test the first three dates are about gone while the later dates are still showing up fairly well.

Field work has consisted of disking a few plats and trimming roadways. It is useless to do much field work until rain is received.

DALHART:

The past week has been quite windy. The soil has dried to a considerable depth but no soil blowing has occurred. One shower was recorded at the station netting .09 inch. A heavy downpour was recorded in Dalhart the same night which netted around an inch. The heavy rain ended just half way between the station and town.

Field work has progressed rapidly this week since there were no delays due to climatic conditions. Field corn and the variety peanuts were planted during the week. Plats were prepared for planting the second date of cotton, also the first date of the extensive cotton variety test which consists of some 24 varieties. The plats were prepared in the north field for planting the rotations. This work was finished at 5 p.m., today. The preparation of the plats in the west field will be commenced the first of the week. One plat (rotation 89) of corn was top dressed with manure after planting.

The increase fields are prepared for planting the increase crops. The alternate cowpea and milo block will be planted the first of the week if conditions will permit. Considerable increase kafir will also be planted on increase land which was prepared this week for planting.

Maximum temperature 81, minimum 41; precipitation .09 inch.

TUCUMCARI:

Wind movement the past week has been so constant that the first spray for codling moth on apple trees could not be applied until yesterday. At that time about sixty trees were sprayed. Cherries and apples now promise a fair crop, while there is a very light load on the pear trees.

A small block of increase land was listed to Reed kafir this week, but no other planting was done. The May 15 date of planting block was plowed and harrowed, as were the spacing test block and the alternate cowpea-milo block.

Lister planting is progressing rapidly in this locality and planting conditions would be ideal if the soil were slightly warmer. Sorghum plats planted on May 1 show no emergence and a number of varieties have sprouts less than one inch long.

Cattle are in good condition, the calf crop is unusually heavy, ranges are improving rapidly, wheat continues to promise the best yield ever made in this locality, farmers have bought more sorghum seed than in recent years, and beyond doubt farm and ranch conditions are the most encouraging in a number of years in eastern New Mexico.

Maximum temperature 80, minimum 44; precipitation .25 inch.
Evaporation, 1.654 inches. Wind velocity, 5.9 miles per hour.

BIG SPRING:

Several light rains occurred during the first part of the week. Although they did not net very much moisture, there was just enough to make the fields too wet to work. During this time several loads of milo were hauled for the cattle feeding work.

The May 1 date of seeding was not planted until May 3 on account of wet fields. The work during the last half of the week has consisted of plowing the A plats in the M. C. series and also the fallow plats in the rotations and the D plats in the M. C. series. Some disking has been done in preparation for planting.

Mr. V. V. Parr, of the Bureau of Animal Industry, was a station visitor, May 7.

Maximum temperature 85, minimum 48; precipitation .08 inch.

LAWTON:

On the evening of May 2 a torrential rain of 1.22 inches, accompanied by considerable hail, fell within about thirty minutes. Hail damage, however, was inconsequential. Surface soil was tightly packed, and the run-off was heavy. This rain was followed by another rain of 1.33 inches on the 6th and 7th. It fell slowly and soil that was at all receptive is now saturated.

Lawton, continued:

Cotton, planted on the 17th, has not yet emerged although the ground in the row was scratched between the rains. Grain sorghums, planted on the same date, are just emerging.

Wheat on all of the rotations has completed emergence from the boot. Growth is rank and considerable leaf rust is present. Among the varieties of hard wheat under test, Blackhull so far seems to be free from rust. In the soft wheat test Fultz is about 50% headed. All of the Winter Barley varieties and all of the date seedings are now in full head. Oats as a whole is from 10 to 50 per cent headed. Tenn. No. 3543 winter barley is very smutty. All others are, so far, free from smut.

Artic sweet clover No. 2350 and Biennial Yellow No. 2440 were blooming to some extent May 5.

Maximum temperature 85, minimum 55; precipitation 2.55 inches.

WOODWARD:

The event of the week was a gently falling rain "worth a million dollars" to this immediate vicinity. This should carry wheat, which is early this year, through heading, but more will doubtless be needed to mature it.

Due to the moist soil and a desire to get other work out of the way before wheat harvest, many farmers are starting to rush in their milos and kafirs. Other years farmers have asked us the best date to plant row crops, but this year all seem anxious to get planting off their hands, before the hoped for big wheat harvest comes on; the biggest harvest in acres, and very possibly in bushels per acre, in years.

Cotton planted April 20 is up to a fair stand. Cotton has usually been planted in late May and early June in this section, but station date tests seem to be pointing toward early May planting for profitable cotton production so strongly that numerous date tests have been inaugurated.

The vegetation has all recovered from the late hard freezes and over the past week the whole landscape has changed suddenly from a winter to a spring aspect.

Station work has consisted largely of spring-toothing or cultivating most of the station fields to kill weeds, in spraying, finishing pruning, planting grape cuttings, and grading roads.

Maximum temperature 83, minimum 50; precipitation 1.39 inches.

Average hourly wind velocity 7.1 miles. Evaporation 1.512 inches.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 15 1926

REPORT FOR WEEK ENDING MAY 15, 1926.

HAVRE:

The week was cooler with light rains recorded on four days, totaling .36 inch. This was not enough to wet the dry seedbed through to the old moisture, so that the fall and spring plowed, and disked plats will not show good stands until after heavier rains occur.

Winter rye headed and winter wheat is shooting. Stands of spring grains are very good on fallow.

Mr. John M. Stephens and Director F. B. Linfield, of the Montana Experiment Station, were station visitors on the 9th.

Maximum temperature 83, minimum 33; precipitation .38 inch.

JUDITH BASIN:

Cool, cloudy weather has prevailed throughout most of the week, and several good rains were received which have been of material benefit to all plant growth. Barley, wheat, and flax on the rotation plats are coming up, alfalfa is about 8 inches high, and winter wheat on fallow is commencing to joint. Winter rye survived with unusually thin stands on all plats and it will be necessary to reseed some of the rye plats.

The remainder of the conifer trees were planted early in the week, cabbage and cauliflower plants were set out, and the second planting in the vegetable garden was made. Seeding of a 35-acre field of barley has been completed, and planting of corn on the forage crop plats has commenced.

Maximum temperature 74, minimum 34; precipitation .87 inch.

HUNTLEY:

Frequent showers and warm weather during the week have constituted ideal growing conditions and all crops have responded accordingly. Marquis wheat planted on the winter wheat plats is nearly as tall as the Kubanka wheat planted in the spring wheat rotations two weeks earlier. Alfalfa has made a particularly rapid growth and now stands over knee high in the pastures. Fall pigs were turned into the alfalfa and brome-grass pastures on the 13th. Annual pasture crops are not yet ready for grazing. In this experiment it was necessary to reseed the winter rye plats to oats and the opening date has been postponed until the oats have made more growth.

Maximum temperature 82, minimum 36; precipitation .86 inch.

SHERIDAN:

More rain fell the first of the week, providing a good supply of moisture for current needs. Stubble land now appears to contain a fair supply of moisture to a depth of over 3 feet. Much of the earlier seeded grain that was put into dry soil is now emerging.

No field work was possible until the 13th. The potatoes were planted on that date. Preparation of plats for corn has been completed. All vegetation is making a fair growth. Winter rye is beginning to head.

Mr. J. M. Stephens was at the station on the 11th.
Maximum temperature 75, minimum 36; precipitation, 1.08 inches.

DICKINSON:

Mild, pleasant weather continued through the week with very little wind until Saturday.

Crops have come along rapidly since the rain of last week. Alfalfa, sweet clover and the cultivated grasses have all made a good growth during the week. Crested wheat grass is well ahead of the brome and Arctic sweet clover is ahead of other varieties now. On the rotations the stand of grain is thickening on those tillage methods which were too dry for complete germination before the rain. A few more days will be required before all the grain seeded about April 15 has emerged.

Corn was planted on the rotations on the 11th, the corn varieties on the 14th, and an increase field on the 15th. Flax, millet and potatoes were planted on the rotations on the 14th, also the flax varieties and the flax-wheat mixtures in the cereal project.

Potato varieties were planted during the week. Several varieties of root crops were planted for the Office of Forage Crop Investigations.

Apples and plums have been in full bloom during the week. Both crabs and apples as well as plums have an unusually large amount of bloom this season and the flowers have persisted longer than usual. It appears that a good crop of fruit is setting.

Professor H. S. Rush, Department of Electrical Engineering, Agricultural College, was a station visitor on the 14th.
Maximum temperature 73, minimum 34; precipitation .21 inch.

MANDAN:

Agronomy

The week has been favorable for all field work. The good rain of last week, and the early part of this week, put the ground in excellent condition for working. While all the rain soaked into the ground, it wet the soil only about 12 inches in fall plowing, 14 inches in spring plowing and 18 inches in land that was in corn last year.

All rotation plats for corn have been plowed and prepared for planting. The planting will be done early next week.

Potatoes were planted in the rotations on the 14th. There was no damage from frost during the week. Small grains are coming on rapidly. Seed that had not germinated previous to the rain is coming through the ground. Alfalfa, bromegrass, and wheat grass, are all growing rapidly.

Winter wheat on the "stubbled-in" plat, now looks like a very good stand. Land for sweet clover and alfalfa in the forage crop rotations, has been prepared for seeding, which has been delayed because of the demands of other work. Land has also been prepared for new seedings of crested wheat grass, and bromegrass.

The total rainfall for May to date is 1.91 inches.
Maximum temperature 71, minimum 32; precipitation 1.02 inches.

Cooperative Grazing Experiment

Bromegrass, sweet clover and native vegetation are showing good progress since the rain. It does not look like sweet clover would be ready to pasture as soon as the native vegetation or bromegrass. Grazing will no doubt be started on it at the same time as the other pastures.

There was very little water collected in the dam from the recent rains, which shows there was little runoff.

The steers were branded on the 11th. The initial weights are being made, and the cattle should be started on the pastures early in the week.

Horticulture

The plat for Sweetcorn breeding has been marked out and seeding will start Monday, the 17th.

Mandan, continued:

All vegetables in the Acre garden project, with the exception of two 3-succession crops, have been planted. Tomatoes, pepper and egg plant are still waiting more settled weather conditions before being set out. At present the soil is in excellent condition for the growth of vegetables.

The lawns have been mowed. The Blue grass appeared almost dead, being brown and brittle just before the rain, but now has revived splendidly.

At the present time the campus is gay and bright with blossoms. The lilacs are most prominent and, being used lavishly in the shrubbery, are very striking. Other shrubs in bloom are Spirea arguta, Ribes aureum, and Sonicera tatarica.

Arboriculture

A circular letter has been prepared for all County Agents, giving the names of farmers in their counties who have made application for 1927 shelterbelt plantings. Copies of the revised circular on "Location of Shelterbelt and Preparation of Land for Tree Planting" were mailed to all cooperators who are preparing land for tree planting this season.

Work of lining out conifer seedlings received from the Cloquet Forest Experiment Station is nearly completed. Sixty-six thousand cuttings of Northwest poplar have been planted in the west field.

ARDMORE:

Weather conditions have improved somewhat during the past two weeks. The total rainfall from May 2 to 13, inclusive, was .96 inch, and during this period precipitation was recorded on eight days. The heaviest precipitation during a 24-hour period was .30 inch on the 7th. Heavy rains have been reported throughout the western part of the State, and there was much better rainfall in many sections than in the vicinity of Ardmore.

The soil was very dry and readily absorbed the small amount of precipitation. There was but little interruption in field operation.

Ardmore, continued:

Pasture conditions have improved somewhat, but are not up to normal. Native wheat grass hay has made very little growth, and the prospects for a good yield of this important crop are now rather remote. Alfalfa is now making some growth, but is not nearly up to normal.

Ten sows and their litters consisting of a total of 78 pigs were put on alfalfa pasture on May 5.

Maximum temperature 65, minimum 28; precipitation .36 inch.

ARCHER:

The week has been cool and rather disagreeable for field work. Precipitation was recorded six mornings during the week with a total of .28 inch.

The wheat, oats, barley and peas have been seeded and the potatoes have been planted on the Dry-Land plats. All land is ready to be seeded except 17 acres in the general field, which will be seeded to millet. Tree planting began yesterday. The prairie grasses have grown fast and the winter wheat is jointing rapidly. Very little winter killing occurred even when the winter wheat was seeded with the common drill.

Maximum temperature 66, minimum 28; precipitation .28 inch.

AKRON:

Showers have been the rule the past week following the rain reported last week. Ground has been too wet to work until the latter part of the week. The rains made it possible to plow 30 acres of sod across the railroad at a time when other types of field work could not be accomplished. The tractor and a two bottom plow was used. The plowing and packing was completed today. Other work has been the docking and castrating of lambs, the trimming of rotation plats and later in the week the harrowing of the corn land.

The week having been cool and rainy has been very favorable for winter wheat. It appears to have stooled markedly and may yet make a fair ground cover. Oats which did not germinate earlier are coming up now. The stand, however, in the worst cases was fully 85 per cent before the rains. A good stand of alfalfa was noticed emerging on the three plats of Rotation 42 but no bromegrass has yet made its appearance on Rotation 41. The perennial grass and clover nursery was seeded today.

Mr. H. H. Simpson, County Agent of Weld County, visited the station early in the week and fixed a tentative date of July 14 for the Weld County tour of the station. Mr. J. M. Stephens visited this station Friday, the 14th.

Maximum temperature 64, minimum 38; precipitation .80 inch.

NORTH PLATTE:

Fair growing conditions have prevailed during the week. Temperatures were unseasonably low until the last two days. A light frost with temperatures of 31 and 32 degrees on the bench and table on the night of the 13th injured tender vegetation slightly. First plantings of corn are beginning to emerge.

The following from a North Platte paper of May 11 will be of interest to station men who have had experience in north and south travel on the plains:

"The Great Plains Highway Association was formally organized when 300 delegates, representing towns between Pierre, S. Dak., and Amarillo, Texas, and covering a north and south distance of approximately 1,000 miles, met in convention at McCook yesterday. Viewed from the angles of attendance and enthusiasm the gathering stands out as one of the greatest road meetings that has ever been held in the state, and in actual accomplishments it was very satisfactory to all attending delegates, some of whom had driven 750 miles in order to be present.

"This proposed highway will be international, inasmuch as its objective points are Mexico City and Regina, Canada, and for the greater part of the way the route as outlined is nearly a direct north and south line. Entering the United States from the south at Loreda, Texas, the line veers slightly northeast to San Antonio, thence slightly northwest to Sweetwater and then shoots directly north across Texas and the western thirty-six mile wide strip of Oklahoma and enters Kansas south of Liberal thence north through Garden City, Scott City, Oberlin, McCook, North Platte, Valentine, Pierre and Bismarck into Canada.

"State Engineer Cochran was present at the meeting and in an address stated that so far as that portion of the highway through Nebraska is concerned, it would be incorporated into the highway system of the state just as soon as a further allotment of mileage is made by the Federal Government.

"The State engineers of South Dakota and North Dakota have also agreed to incorporate the highway into the state system in those two states.

"These assurances were sufficient to impress all with the belief that there is no question of doubt as to the construction of the road as a north and south national highway.

North Platte, continued:

"The number of delegates from towns between North Platte and Hurdo, S. Dak., and including those two points, was one hundred and fifty three. Forty-two cars were in the procession to McCook, and all entered that town in a bunch.

"It can be said with certainty that within the next five years the construction of the Great Plains Highway from the Gulf to Canada will be fully completed."

BELLE FOURCHE:

A good rain the first part of the week kept the surface soil moist and in good condition for growing crops. All grains made good progress. The winter rye has commenced to joint but prospects are for a rather low yield as the rye has tillered very little. Winter wheat is in about the same stage of growth as spring wheat.

All corn plats were harrowed during the week and the corn was planted on the 15th. The usual date of planting is about May 10, but rain the first part of the week delayed planting. All plats are moist enough to insure germination of the corn.

The rainfall for the week was .66 inch, and the total for the month to date is 1.69 inches. A killing frost occurred on May 13 but did very little damage.

Maximum temperature 72, minimum 29.

COLBY:

An additional shower was received this week which brought the May precipitation to 1.42 inches. This has given us moisture in the first 6 to 8 inches of surface soil but the subsoil is still very dry. This precipitation will not hold the wheat long unless additional precipitation is received at an early date.

All of the corn plats on the D. L. A. project were seeded during the week. Nineteen corn varieties were replicated four times in 1/20th acre plats. A corn nursery of 240 strains was planted today. Mr. Willier who is with the main Station at Manhattan, assisted with the planting of the corn nursery. Due to the presence of the ground squirrels, poisoned bait has been spread along the borders of the experimental plats.

Colby, continued:

Corn planting on the forms in Northwest Kansas has just gotten into full swing at the present time. A trip taken Thursday would indicate that some corn is being planted on practically every farm and that each farmer started this past week to list corn.

The Agricultural class of the Goodland High School consisting of approximately 25 pupils visited the station one day during the week. The Agricultural class of the Hoxie High School, consisting of approximately the same number of pupils, visited the station on another day during the week.

The commercial field of corn on the station remains to be planted. The plats that are to be summer fallowed are also to be plowed. A start was made on plowing the summer tilled plats late Saturday afternoon.

The past three days of the week have been the only good growing days that we have had for a couple of weeks.

HAYS:

The first part of the week was generally cool and cloudy. Precipitation consisted in traces two days and small showers two days, giving a total of .31 inch for the week. The cool weather is ideal for winter wheat. There being but little reserve moisture in the soil, it will require considerable rain and cool weather to make a good crop out of the heavy growth now on the ground. The wheat looks very good. On the best plats, the wheat is two feet high and very thick. On the poorest plats, it is thin, poor color and about six inches high.

Spring small grains are doing fine. These crops never looked better at this time of the year.

Alfalfa is making a very good growth on the bottom land, but on the upland it is light.

Corn planting on the plats was finished today. Generally the ground was in fine condition. The spring plowing, however, is a little lumpy.

The project is drawing the attention of many visitors the past few days.

Maximum temperature 74, minimum 34.

GARDEN CITY:

The past week has been cool and cloudy. Rain threatened on several days but little moisture was received. A thunder storm on May 8 produced a rain totaling 1.38 inches on the station. In Garden City, five miles away, only .25 inch of moisture was received. This rain fell very rapidly and a great part of the moisture was lost through surface runoff.

The rains and cloudy weather have caused the winter wheat that looked almost dead to revive and start growth. Wheat on fallow is now in the boot and will no doubt begin heading within the next few days.

The first planting in the date test with sorghums was made on the 15th. The planting was made in a good seedbed, but one that was quite cold. All varieties were treated with copper carbonate before planting.

Maximum temperature 76, minimum 38; precipitation 1.61 inches.

DALHART:

The past week has been cold and wet. Rains were recorded on four days during the week, making a total of 1.14 inches. The first rain of the week occurred on Sunday night, May 9. Rain fell each day for three days, skipped one day and rained again. The sky is clear today and fields are drying in good shape.

The wet weather of the week has delayed field work considerably. The May 10 date of cotton could not be made on time but will be planted today, five days late. The 2nd date of sorghum planting will be made on time. The plats have been ready for planting for several days.

Winter rye on Rotation 82 is being turned under for green manure today. It has reached its maximum growth, is headed and the soil condition is just right for turning it under. Some of the plats in the west field will be plowed this afternoon. The harrow is being used today in order to put the rotation plats in shape for planting the first of the week.

Winter rye is still shooting up. It is nearly waist high in some places and still going. It is quite likely to get at least 4 feet in height before harvest. The winter wheat is about 3 feet high and looking good. Oats are not making much headway, the two plats averaging about 3 to 4 inches. The stand is good.

Dalhart, continued:

The first date of planting of sorghums has emerged. The May 1 planting of cotton is just beginning to emerge. The field corn has practically all germinated and much of it is through the soil.

Maximum temperature 77, minimum 35.

TUCUMCARI:

Rains four days of the past week, totaling 1.55 inches, prevented field work most of the time. The lister was started on an increase field of Sunrise kafir, plowing of the spring plowed M. C. plats was begun, and the May 10 cotton plats were planted, and then rains kept teams from the fields until today, when possibly the May 15 date plats can be planted.

Emergence of the May 1 date plats of sorghums took place about May 10. The soil is so cold that no May 1 cotton has emerged and it has been impossible to find sprouted seeds. Ranges are exceptionally good and winter wheat is making rank growth. Fear is now expressed that the rainy, cloudy weather may cause extensive rust damage, especially serious on the field of rankest growth. Station rye plats have been in head ten days and promise good yields; wheat is showing an occasional head and where growth is heaviest some rust is evident.

Maximum temperature 77, minimum 41. Wind velocity, 4.9 miles per hour.

BIG SPRING:

Although the weather has been cold during the past week, it has been favorable for farm work. As a result everyone in this vicinity has been planting cotton.

The winter wheat is headed out in good shape, but it has rather short straw, and will have to have more rain before much grain will be developed.

The work this week has consisted mainly of disking and harrowing in preparation for planting. The field for cooperative experiments was disked and harrowed as well as one increase field. The rotation field was harrowed and staked, and planting will be started here next week if the weather remains favorable.

Plans are now being made for a Feeders' Day meeting to be held at the station June 8. The present feeding tests will be closed and the results announced at that time.

Maximum temperature 85, minimum 40; precipitation 0.

LAWTON:

Cold, cloudy, showery weather continued throughout the week. Small grains and alfalfa flourished under these conditions but early planted cotton, sorghum crops and corn show the need of sunshine and warmer temperatures.

All small grains, except those planted late in date tests, are in full head and the prospects for profitable yields are all that could be desired. Winter barley is turning rapidly and will in all probability be ready for harvest within less than 10 days. Early seeded oats will also likely reach maturity at an early date.

But very little field work was possible during the week because of showery, cloudy weather which prevented a wet soil from drying with much rapidity. It was possible, however, to do a very small amount of rotation planting in addition to the regular date plantings on the 15th.

Precipitation recorded on four dates during the week amounted to .78 inch. Total for the month 3.33 inches. The range in temperature for the week extended from 40 to 80.

WOODWARD:

The past week has been cool, damp, and cloudy most of the time. Precipitation varying from .01 to .08 inch has fallen on four dates. Due to the cool weather all crops have been making slow progress. However, the rye is blooming and wheat on the plats is fully headed. Wheat over this section is beginning to head.

Rye green manure plats have been plowed. Corn on D. L. A. project has been thinned and cultivated, that on the dairy farm has been cultivated. The cotton planted April 20 is making slow growth, while the May 1 date is up to a fair stand. The third date and the first planting of the single rows of the cotton variety tests were planted on May 10. The third date of the corn variety test and grain sorghums were planted on the 14th. Planting of grape and other cuttings has been finished. Sudan grass has been sown for cow pasture.

Maximum temperature 83, minimum 45; precipitation .13 inch. Evaporation 1.281 inches. Average hourly wind velocity 5.6 miles.

96

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 22 1926

REPORT FOR WEEK ENDING MAY 22, 1926.

HAVRE:

The past week was dry with a wind velocity above normal for this season. Except on fallow and corn ground, germination of spring grains is uneven. Rains of a week and a half ago were heavy enough, however, to start Russian thistles, with the result that spring crops, not only on the station but throughout this section of the state, are becoming very weedy. An exception has been wheat seeded very early on spring plowing, as this has had fair germination and fair growth.

Domestic grasses are beginning to suffer. Crested wheat is starting to head. Alfalfa on dry land has made a fair growth, while under irrigation it has made an unusually heavy growth for this season.

Corn was planted on the irrigated fields during the week. Grains and alfalfa were also seeded. Corn land on the rotations is ready and the planting will be done early next week.

Maximum temperature 77, minimum 42; precipitation 0.

JUDITH BASIN:

Moderately cool, windy weather has prevailed throughout the week. The sky has been overcast and threatening a good portion of the time, but only two light showers were received. Conditions have been quite favorable to plant growth and all crops have shown a marked advancement. Spring wheat, barley, oats, flax, field peas, alfalfa, and sweet clover are up on the rotation plats. Alfalfa is nearly 12 inches high, and the remaining plats of winter wheat and rye have made a great improvement over last week.

Seven plats of winter wheat and three plats of winter rye were worked with a duckfoot cultivator, and reseeded to spring wheat. Corn plats on the rotations were plowed and planted, and corn was planted on the hog pasture blocks. A 25-acre field of oats, and small increase fields of Horn barley, Markton oats, and Sixty Day oats were seeded. A few plantings of raspberries, currants, gooseberries, and plums were made in the experimental orchard, and cultivation of the orchard and shelterbelt blocks was commenced.

Maximum temperature 73, minimum 39; precipitation .12 inch.

HUNTLEY:

Good growing weather has prevailed during the week. Two light showers and a number of cloudy days have benefited crops such as alfalfa, bromegrass and winter rye, which are beginning to draw heavily on the reserve soil moisture. Spring-sown small grains are growing rapidly and corn planted on May 8 is now all up. Potato varieties were planted May 20.

Mr. J. M. Stephens and Director F. B. Linfield were among the station visitors of the past week.

Maximum temperature 79, minimum 39; precipitation .19 inch.

SHERIDAN:

Another half-inch of rain the first of the week delayed field work again but was of benefit in maintaining good moisture conditions. Corn was planted in the rotations on the 19th, and all other plantings on the station were completed the next day, except some to be planted at later dates. Roadways have been marked off and are now being lined out.

Crop conditions at the present time are excellent. Winter grain has been making a rapid growth. With spring grain the stand on some plats is rather thin and Russian thistles are thick, but the grain is making good progress. The weather generally has been cool and cloudy.

Maximum temperature 74, minimum 41; precipitation .78 inch.

MANDAN:

Agronomy

The past week has been favorable for all field work. A nice rain fell on one day

Small grain is making good progress, but is nearly two weeks behind the normal season. Grains on fallow are much in advance of those on other methods.

Corn was planted in the rotations on the 18th. A 4-acre field was planted the day before. Corn in the silage test and the corn varieties were also planted. Part of the corn breeding nursery will be planted today.

One seeding of alfalfa and sweet clover in the forage crop rotations was made during the week. Root crops, and the sweet clover nursery were also planted.

Mandan, continued:

Flax in rotations 41 and 42, and alfalfa in 42, was seeded on the 21st and 22nd.

Alfalfa is making rapid progress and appears to be ahead of the season.

Maximum temperature 77, minimum 33; precipitation .34 inch.

Cooperative Grazing Experiment

The cattle were divided and started on their pastures early in the week. The steers for the pastures averaged 780 pounds per head. Six head were started on 25 acres of bromegrass, and five head on 10 acres of sweet clover. It may be possible to add more to the sweet clover group as the season advances.

Arboriculture

Lining out of the last of the conifers and a few hundred small Chinese elm, Caragana and Green ash was completed on the 19th. This finishes the spring planting operation. All field hedges and nursery stock have been cultivated and work started on cleaning up the spruce testing blocks.

Birch, Soft maple, Basswood, and hackberry, all show a certain amount of winter injury, mostly in the tops of the trees. This type of damage is especially noticeable in the birch, where the top half of the trees are apparently dead, while the lower branches have leaves out with a fairly vigorous growth.

Horticulture

The sweet corn selections in the sweet corn breeding project, numbering 390 ears, have been planted. This is the second generation of selfed ears, and as the various "families" appeared very uniform last year, some crossing of the best strains is to be done this season. One strain, which segregated white ears, looks especially interesting.

Continuation of vegetable planting has been in progress, and late cabbage, cauliflower and celery, have been set out. The early planted stuff is emerging after the late rains with a good stand, but is very much delayed and will come in about the same time as the second plantings.

The lilacs have been in bloom all week, and are still very good. Some of the named "French" varieties are beauties. Madame Perier, a double white; Pres. Grevy, a double lavender; Chas. X, a single profuse bloomer of reddish lilac, and Congo, a dark wine purple with enormous trusses, are among the best. The Persian lilac has again made a great showing, demonstrating itself as one of the choicest shrubs for this region.

BELLE FOURCHE:

The first part of the week was cool and there were two good showers. The latter part of the week was warm and all crops made good growth. Winter rye is jointing but winter wheat is no further advanced than spring wheat. The rye tillered very little and the crop will be light regardless of how favorable conditions from now on may be.

The potatoes, flax, alfalfa, and sweet clover were planted the first part of the week. The plats of alfalfa and sweet clover seeded last year were reseeded to thicken up the stand.

The sugar beet special car of the Great Western Sugar Company stopped at towns on the project on May 20. This car contains demonstrations of approved methods of handling the beet crop. It attracted a great deal of attention and the meetings held in connection with it were well attended.

Maximum temperature 86, minimum 36; precipitation .59 inch.
Total rainfall for May to date 2.28 inches.

ARDMORE:

Light rains fell on four days during the week. For the most part this precipitation came slowly and was of considerable benefit to crops. A heavy rain is badly needed. There is very little moisture stored up in the soil, and generally speaking all crops are in need of more moisture. There was a light hail storm on May 21, which did very little or no damage to crops.

Planting of rotations plats of corn and field of the same crop were completed during the week. Four small fields of cultivated grasses were seeded during the week. They are to be used in the beef cattle grazing experiment.

Steers which were used in the steer wintering experiments were weighed and put on pasture on May 22, the usual date for starting the grazing experiment.

Alfalfa and native grass is making a very poor growth because of insufficient moisture. Small grain crops look very well, but doubtless would be much improved by a good rain.

Maximum temperature 81, minimum 37; precipitation .74 inch.

ARCHER:

The weather during the week was rather warm with light showers during the first four days. A high wind prevailed Thursday but since that time it has been warm and dry. The total precipitation for May to date is .55 inch. This makes a rather dry spring.

All field plat varietal seedings have been accomplished. The planting of trees was completed Friday. The corn is being seeded and the sunflowers are in.

Maximum temperature 78, minimum 33; precipitation .17 inch.

AKRON:

A shower of .15 inch was received early in the week which delayed field work for one-half day. Aside from this delay the week has been favorable for field work and work progressed favorably. The Sheep rotation and the Rotation corn plats were seeded. The rotation and Cereal Variety Project alleys were cultivated. Some time was spent trimming the rotations plats. The apple trees were sprayed with arsenate of lead late in the week. Some time was spent working down the 30 acres across the railroad which was plowed for perennial and biennial pastures.

Ground squirrels have been especially numerous this spring. It would seem that the past two dry seasons were favorable for this rodent. On the rotation plats it is a pest, seriously damaging stands. Poison corn was seeded around the two rotation (sheep) corn fields in an attempt to stop depredation there. On the rotation block proper poison corn, cyanogas, and even the shot gun have been used this spring until it is felt there will be little or no damage to corn stands.

Grain is making excellent progress. Rye is jointing and about ready to head.

Maximum temperature 84, minimum 43; precipitation .15 inch.

NORTH PLATTE:

The rainfall deficit continues to accrue. Showers on Monday totaled .25 inch. The remainder of the week has been dry with high winds. The total rainfall since January 1 is 2.20 inches. The 50-year average for the period is 6.17 inches.

Corn planting in this section is about three-fourths completed. The last field on the station is now being planted. Alfalfa on the bench has made a fair growth in spite of the dry weather. Stock have been turned out on the pastures, but grass has not made very much growth.

COLBY:

Work during the week consisted of planting of the balance of the corn on the station and plowing of summer tilled plats. The corn planted during the week consisted of 15 acres of corn for seed and feed, four isolation areas for pure seed and some guard strips. A rain of .40 inch the first of the week helped to keep the wheat from suffering until today, and to insure good germination of corn. Corn planted on the D. L. A. project on the 13th is just starting emergence.

Winter wheat is heading out. Wheat is going to be very short and is going to need moisture to make much wheat. There is very little reserve moisture left in the summer tilled land at the present time.

Spring grains look fairly good at the present time. In the plats that have thin stands the thistles are soon going to be as tall as the spring cereals so that too much competition for good yields can be expected.

Today, the 22nd, the wind has been quite high and evaporation is high so that the wheat is showing the effect of the lack of moisture today more than it has since the rains of the first of the month.

It is doubtful if sorghum seeding will be started on the station this next week. With the shortage of moisture that we now have, it is believed that it will be advisable to wait at least until the first week of June before starting to seed sorghums.

HAYS:

One inch of rain, which fell during Sunday afternoon and Monday, has revived the wheat and alfalfa that had previously been wilting and some of it suffering, especially the wheat. Everything now looks fine. The wheat on Rotation 570, which is seeded on ground continuously fallowed for three years, is the only wheat that had not wilted and been checked more or less in growth by the droughty weather. It has continued throughout the spring, making a very heavy growth until now it is at least six inches higher than the next tallest wheat and not a head yet in sight, while many of the other plats are heading.

Corn is coming up, but there is some question if the stand will be perfect on account of the packing effect of one of the showers which came with a dash.

Hays, continued:

Barley is beginning to head and oats are about ready to come out in head. Spring wheat is looking good but not so far along as the other spring grains. Rye, which had suffered extremely by drought, was turned under Wednesday. The ground turned very dry and hard except for the thin layer of dampness at the surface caused by the rain a few days before plowing was done.

Everything is in readiness to plant kafir and milo the first of next week.

GARDEN CITY:

High temperatures and high wind velocity have prevailed throughout most of the past week. Rain has threatened on several days, but only .20 of an inch of moisture was received.

Winter rye is in full head and winter wheat on the better seedbeds is beginning to head. The poorer methods are beginning to show the need of moisture.

All plats htat are to be cropped to the row crops were spring-tooth harrowed during the week. The dashing rain of two weeks ago left the soil in a rather packed condition.

The date of planting of sorghums which was made a week ago has just started to emerge.

Maximum temperature 90, minimum 46; precipitation .2 inch.

DALHART:

Climatic conditions have been very favorable for field work during the entire week. Several threatening storms approached and acted as if something might happen but each time nothing happened to delay field operations. Two records of precipitation were made, one for .06 inch and the other for .01 inch.

During this week a great deal of work was accomplished which enabled us to catch up. All the rotations were planted this week. The windbreak strips were drilled to millet which will be used for hay.. All the plats for Cereal Investigation work were prepared for planting, also preparation for the next date of cotton. The increase fields were put in shape for planting and increase kafir was planted. The alleys between wheat and rye, also oats, were cultivated. The vineyard was cultivated and the tree plantings disked.

Dalhart, continued:

Winter wheat and rye have made still further headway. The rye will likely reach the 5-foot mark in places and will easily average 4 feet. The winter wheat is approximately 3 feet in height and the plats quite uniform. Oats have made better progress the past week than at any time during the spring.

During the week some drying winds occurred but as a whole the wind was very moderate, at times not sufficient to pump water.
Maximum temperature 86, minimum 46; precipitation .07 inch.

TUCUMCARI:

Preparation of soil and planting of the MC kafir, corn and cane plats was performed, while the variety grain and forage sorghums, variety peanuts, spacing sorghums, and May 20 date of planting cotton plats were planted. Some increase land was plowed and harrowed, while six acres increase kafir was lister planted.

All May 1 date of planting sorghum plats show good stands, while the May 15 plats are showing emergence today. May 10 date cotton plats and 26 single rows planted the same date have emerged to good stands, while cold soil at planting time, beating rains, and baked surface soil have resulted in only partial emergence of the May 1 dates of cotton, in spite of "scratching" these plats to break the crust.

The seven-month steer feeding experiment was closed yesterday, May 21, and the cattle are now en route to Kansas City. President H. L. Kent, of the State College, acted as chairman of the meeting held at the station yesterday, while J. L. Lantow, of the same school, explained the details of the experiment. The crowd was disappointingly small, but due to rainy weather the past three weeks farm work is unusually pressing and many who intended coming would not delay field operations. County agents from Las Vegas, Clovis, Mosquero, and Clayton attended and were accompanied by from three to twenty farmers and ranchers of their various communities.

Tucumcari, continued:

Seven month feeding test with steer calves.

	Lot #1 Cane silage Cottonseed meal Ground milo (pounds)	Lot #2 Cane silage Cowpea hay Ground milo (pounds)	Lot #3 Cane fodder Cottonseed meal Ground milo (pounds)
Ave. initial weight	362.2	359.7	363.4
Ave. final weight	764.1	709.2	734.2
Ave. gain, daily	1.91	1.68	1.79
Feed required for 100 pounds gain.			
Cane silage	638.0	538.0	-----
Cane fodder	-----	-----	429.0
Cottonseed meal	98.0	-----	107.0
Cowpea hay	-----	158.0	-----
Ground milo	484.0	552.0	500.0

Mr. E. F. Chilcott, of Woodward, Mr. J. R. Horton, Entomologist, stationed at Wichita, Kansas, and Prof. Overpeck, of the Agronomy Department of N. M. State College, are visiting the station today, May 22. Mr. John Carter, graduating this spring from Manhattan, who will be in charge of the three demonstration farms, located at Capulin, Clayton, and Mosquero, is also here to procure seed and visit the station.

Maximum temperature 87, minimum 50; precipitation .43 inch.
Average hourly wind velocity, 3.8 miles.

BIG SPRING:

The weather during the past week has been very hot and dry; the temperature on May 20 going to 106, which is quite unusual for this time of the year. The clouds have banked up and threatened rain every day during the past week, but only light showers have fallen.

The winter wheat is starting to ripen, but it is badly in need of moisture; the straw is rather short, and grain yields will probably be very light.

Big Spring, continued:

Work during the past week has consisted mainly of planting. In the cooperative work, cotton, grain sorghums, and cowpeas were planted; also all of the plats in the rotations with the exception of milo and sumac. A special block of Mebane cotton was planted, from which it is hoped to do some selection work, as well as to obtain a supply of pure seed.

Maximum temperature 106, minimum 60; precipitation .24 inch.

WOODWARD:

The fore part of the week was cool with several small showers. The latter part was hot and and windy. Thursday was about as windy as any day this spring.

Most of the week has been spent in preparing fields for planting. All spring plowed plats on the rotations, which are to be planted, have been plowed; spring plowed fallows are not yet plowed. The fourth date of planting of cotton was planted on the 20th.

Grapes are just beginning to bloom, and are about 10 days later than last year. Some alfalfa has been cut, most of it being very short. The fixtures, floor, mangers, etc., are being put in the dairy barn which was built last fall.

Mr. E. F. Chilcott left on an official trip to the Tucumcari Station on the 21st.

Maximum temperature 89, minimum 49; precipitation .38 inch.

Evaporation, 1.825 inches. Average hourly wind velocity 6.4 miles.

96

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OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 29 1926

REPORT FOR WEEK ENDING MAY 29, 1926.

HAVRE:

The past week was quite favorable for crops that are well advanced but gave very little relief to grains on spring and fall plowing where germination was not uniform to begin with. There were three showers totaling .47 inch but this did not penetrate to the subsoil moisture. These showers were more or less local in character and in certain areas were sufficiently heavy to insure a perfect germination. Weed infestation is quite heavy in many fields, and it is doubtful, even with heavy rains, that these will ever mature a crop. There are, however, other fields that are practically clean of Russian thistles.

Corn was seeded on the rotations, variety tests, and miscellaneous plats during the week. Germination will be spotted on most methods unless rain occurs in the near future.

Winter rye is making very good growth and passed the bloom stage during the week. Winter wheat made very good progress. Domestic grasses which are close-drilled are burning, but in rows made fair growth. Considering the dry spring, alfalfa on dry land has made very good growth, due probably to the subsoil moisture from the rains of last fall. Irrigated alfalfa is about ready to cut, that is, will be by June 10, which is at least a week earlier than usual for this locality.

Maximum temperature 82, minimum 42; precipitation .47 inch.

JUDITH BASIN:

A good rain of .46 inch was received May 24, and comparatively cool weather, interspersed with one or two warm days, prevailed throughout the remainder of the week. All crops have made a rapid growth and crop prospects, as a whole, are unusually good.

All summer fallow plats on rotations were plowed and plowing of all fallow land on the station is nearly finished. Potatoes, field beans, sweet corn varieties, and a 10-acre field of corn were planted during the week. Two $2\frac{1}{2}$-acre hog pasture blocks were seeded to sweet clover and about 4 acres were seeded to crested wheat grass. All spring seeding and planting on the station is now practically completed.

Maximum temperature 77, minimum 36; precipitation .51 inch.

HUNTLEY:

Weather during the week has been quite variable. Several light showers have fallen, in most cases, at night, and on one occasion a trace of hail was received. Cloudy and sunny weather have been about equally intermingled. Small grain crops have reached the point where their need of moisture is greater than the amount received from the current rainfall, as indicated by their dark color and slightly curled leaves after a warm day. Alfalfa is also noticeably wilted during the warm part of the day.

Corn has come up with good stands in all plantings. Alfalfa and brome grass planted a month ago are emerging in patches. The principal field work during the week has been the planting of late sown crops such as beans, Sudan grass, sorgo, and late garden stuff.

Maximum temperature 88, minimum 39; precipitation .22 inch.

SHERIDAN:

Except for three hot days at the beginning of the week, the past few days have been quite cool. Rain occurred again on the 26th and 27th. The week has been occupied principally in working the roadways, setting more field corner stakes, and other miscellaneous work, the ground during the past few days being too wet for other field work.

Crops have been making a fair growth, but the stand of spring seeded grain is rather thin on many plats and Russian thistles are thick. Flax seems to have made a fair start ahead of the weeds, but the weeds are coming quite thick now. All corn previously planted emerged during the week.

Maximum temperature 87, minimum 44; precipitation .58 inch.

DICKINSON:

A rain of 1.41 inches on the night of the 27th has greatly improved the crop outlook in this area. This rain was quite general over Southwestern North Dakota and Southeastern Montana where some localities were very dry.

Pastures and hay crops were short and showing effect of dry weather before the rain. Grains were not drying badly but were not growing at a rate which would have kept ahead of Russian thistle which had come on fast during the past two weeks. With the water now in the soil the crop outlook is considered a litter better than at this date last year.

Dickinson, continued:

Winter wheat and rye are thin and the light growth indicates that the yield will again be below that of spring grains.

Corn on the rotations and feed fields were harrowed during the week. Stands of corn are good as well as other row crops.

About three acres of crested wheat grass were seeded in rows on the 29th for increase of seed.

A "Better Beef" special train reached Dickinson on the 29th on a tour of the state.

Dr. H. L. Walster visited the station May 18.
Maximum temperature 92, minimum 40; precipitation 1.43 inches. The precipitation to date in May is 2.83 inches, about half an inch above normal. Since January 1 the total precipitation is 4.33 inches or more than an inch below average.

MANDAN:

Agronomy

The past week has been favorable for field work. One day was fairly hot with hot winds.

Corn in the rotations is up to a good stand. Sorghums and millets have been planted for the Office of Forage Crop Investigations. New seedings of crested wheat grass, slender wheat grass and bromegrass, were also made for the same office.

Plants have been trimmed and the roadways worked.
Maximum temperature 85, minimum 50; precipitation .07 inch.

Cooperative Grazing Experiment

The cattle appear to be doing well and putting on rapid gains. Grass is only fair and the indications are for a short hay crop.

Arboriculture

Northwest poplar cuttings are sending out leaves with indications of a good stand.

Mandan, continued:

Species Testing blocks have been cleared of dead wood and litter and given cultivation. A large number of applications for 1927 have been received these last few days.

Horticulture

Winter injury notes were taken during the past week. It appears that the past winter was more severe than usual from a horticultural standpoint, and fruit trees and shrubs were damaged about as severely as last year. The large amount of winter injury occurring during the past two years is thought to be largely due to the dry falls, light snow covering during the winters, and dry spring weather extending well into May.

As a general rule, apples and crabs did not suffer as severely from winter injury as other tree fruits, although one and two-year old trees often killed back severely, and such tender varieties as Delicious and Gano were severely injured. Crabs bloomed heavily and apples rather lightly, but as there was no severe frost during blooming time, prospects are good for a better crop of this fruit than we have had before. Most of the crab varieties are setting good crops. Oldenburg, Patten, and Simbrisk apple trees of bearing age are also setting good crops of fruit as a general rule, while lighter sets are found on such varieties as Wealthy, Yellow transparent, and Hibernal. Many apple seedlings in the breeding blocks have set fruit for the first time this year.

Plums and plum-sandcherry hybrids suffered considerably more winter injury than usual. This seems to be particularly true of trees budded on sandcherry roots, which furnishes further evidence to the belief that the native plum makes a hardier and longer lived stock than does the sandcherry. It is interesting to note that some of the Prunus americana x P. salicina hybrids seem to be as hardy or hardier than some of the old standard P. americana varieties, judging from last winter's results. Thus such hybrids as Waneta, Red Wing, Oziya, Emerald, and Cree, seemed to survive the winter in as good or better condition as such varieites as Wolf, Terry, Stoddard, and Surprise. Terry especially showed considerable weakness and killing back. Plum-sandcherry hybrids were not as hardy as usual. Sapa and Zumbra were badly killed back and weakened. Many Sapa trees were entirely killed. Even Compass showed signs of weakness and branches here and there on the older trees failed to start growth. Opata, although a hybrid between a sandcherry and Japanese plum, seemed to be as hardy as anything in the plum-sandcherry hybrid class last winter. It stood up well in comparison to Compass, Cheresoto and Sansoto, which are hybrids between sandcherry and native varieties of plums.

Mandan, continued:

Plums have not set fruit as well as the general heavy bloom and freedom from damaging frosts at blooming time would lead one to expect. The very dry weather, which extended through the blooming period of most varieties of plums, resulted in many weak blossoms which dropped from the tree. Also the four days of rain and cloudy weather from May 6 to 10, which occurred during the end of the blooming period, may have interfered with the work of insects in properly cross-pollinating the late blooming varieties. At any rate, prospects indicate only an average crop of plums, heavy for some varieties and light for others. Japanese-native hybrids and P. nigra varieties, have generally set a good crop, while P. americana varieties and plum-sandcherry hybrids have not set as heavy a crop as usual.

Cherries and pears were severely injured. Some of the older cherry trees bloomed, but little fruit has set.

Currants passed through the winter in good condition, and prospects are good for a fair crop. As a general rule this fruit was not injured as severely as was the case last year.

Gooseberries were severely killed back in the sandy soil where the variety test is located. Even Houghton bushes were often killed almost to the ground, and little or no fruit is expected. However, gooseberries in the west field and breeding blocks, planted on a heavier type of soil, came through the winter in much better condition, and a fair crop of fruit has set.

Raspberries came through in good condition when covered with soil, but a few canes not covered were killed to the ground. Even the native black raspberry was killed back considerably when not covered.

Most cultivated varieties of grapes were severely injured or entirely killed, even when covered with soil. Such hardy hybrids as Beta, Suelter and Monitor, came through the winter in good condition when covered, but were killed back severely when not covered.

Such native fruits as Juneberries, Buffaloberries, Chokecherries, native plums, golden currants, native grapes, and native black currants passed the winter with little or no injury, but many of the older sandcherries were severely killed back. Present prospects indicate that most native fruits in the vicinity will bear good crops.

Mandan, continued:

Potatoes have been planted. The usual variety test and spacing experiment is being continued.

Softwood cuttings of gooseberries, currants and native fruits are now being made.

Other work during the week included pulling out discarded trees in the breeding blocks, cultivating the orchards, and suckering sprouts in the nursery from last summer's buds. A fair stand has been obtained from the budding and grafting work.

Tomatoes in the breeding project, acre garden, and a special variety test were set out in the early part of the week. Bedding plants, including geraniums and cannas were set out on the grounds.

Sweetcorn in the breeding project is emerging with a fair stand. All other vegetables planted earlier are up and good stands of all are had.

The Van Houtte spirea, Red osier, Tartarian honeysuckle, Josikea and Villosa lilacs are in fine condition at the present time, and, while the lawns are indicating need of water, the grounds are perhaps at their best now.

BELLE FOURCHE:

Warm weather the first part of the week followed by copious rains served to make this the best week of the season for growing plants. During the last three days of the week a total of over two and one-quarter inches of rain fell. There was some run-off on corn ground and on other plats where there was little vegetation, but very little run-off on plats where there was small grain or a hay crop. Before the rains the alfalfa was beginning to suffer for moisture but it appears to have entirely recovered.

The plats to be fallowed this year were plowed the first three days of the week. They were in ideal condition to absorb the moisture that fell later in the week.

Bellefourche, continued:

A few heads have appeared on the winter rye. This crop is somewhat uneven. Barley has commenced to form straw. Oats and wheat are tillering about normally. All crops are a little more advanced than usual.

The corn planted on the 15th began to come up on the 24th. Appearances indicate that there will be a good stand on all plats. The one plat of flax came up five days after planting.

Maximum temperature 89, minimum 42; precipitation 2.27 inches.
The total rainfall for May to date is 4.55 inches.

ARDMORE:

Rain fell four days during the week, but the total precipitation amounted to only .73 inch. The total precipitation from May 1 to 29, inclusive, had been 2.39 inches. This is about one inch below the normal for the month of May at this station. During the month of May precipitation amounting to .01 inch or more was recorded on 18 days and a trace on one other day. This would indicate that the month has been very wet, but as a matter of fact cultivation of the fields, because of wet soil, was delayed only three or four days during the entire month. The soil is still dry and a heavy rain is needed.

Alfalfa continues to make a very poor growth, but is showing some improvement. Native pasture is much better than it was a week or ten days ago. Small grain is looking good. Barley is commencing to "shoot". Corn is up, and a good stand was secured.

Planting of fields and rotation plats of sorghum, peas, Sudan grass, and millet were about completed during the week.

Maximum temperature 95, minimum 43; precipitation .79 inch.

ARCHER:

The fore part of the week was hot and dry with rather heavy winds. On May 26 a very propitious rain occurred which continued during most of May 27. The total precipitation of the storm was 1.80 inches. The rain came in gentle showers which prevented any amount of run-off.

Practically all seeding in the experimental field is complete. In the general field, corn and millet remain to be seeded.

Maximum temperature 86, minimum 45; precipitation 1.80 inches.

NORTH PLATTE:

Sorghum varieties were planted this week and preparation of the D. L. A. plats for milo and sorghum was begun. Forestry plantings and the orchard were cultivated. Alleys in the D. L. A. fields were cultivated.

The second set of soil samples was taken on some of the winter wheat plats which have survived the adverse conditions of the spring. On all but summer fallow the moisture supply is practically exhausted and the crop is suffering considerably.

The highest temperature ever recorded in May at North Platte occurred last Sunday when the Weather Bureau recorded a temperature of 98. The thermometer on the bench here at the station registered 99.5 and the one on the table 97.

Several showers occurred during the week but they were of insufficient quantity to be of much value to the crops.

Visitors at the station this week were Dean E. A. Burnett, of the College of Agriculture, and Messrs. Taylor and Warner, of the Board of Regents.

COLBY:

If it were not for the unexpected sometimes occurring, one could very easily note at this time that oats and barley on land cropped the previous year would be a total failure. On most of the previous cropped plats of oats and barley the barley and oats have dried and burned so that even with optimum conditions from now there would not be much produced. This is true of commercial fields on the surrounding farms and on the station. Spring wheat on the project seems to be standing the dry weather and soil slightly better than the oats and barley. On many of the spring seeded grains the weeds, especially Russian thistles and in a few cases "Lamb's Quarter", are practically as thick as the spring seeded crop. Corn shows a good stand on most of the plats. There are skips in some rows here and there.

The sorghums on the project and on the station fields have not been seeded yet. They may be seeded this coming week. The delay in seeding has been caused by the lack of moisture in the soil.

Colby, continued:

Fields on the station that will go into sorghum crops were all again double disked during the week. This makes the second on all the fields this spring and in some cases it makes the third working that the ground has received.

Winter wheat shows pronounced "droughty" condititions at the present time except on a few of the summer-tilled plats. A pronounced difference is noticed in the Method of Fallow series with winter wheat at this time. The plat that was listed, MF-P, appears to be standing the droughty conditions best at this time. The MF-N plat, late spring plowed (June 15), appears but little better than a continuous cropped plat. The other of the MF- series are fairly uniform with what slight variation in present condition there is in favor of the more intensive worked fallow. Wheat grown on land cropped the previous year is thin, short, droughty appearing, and cannot do much more without rain, due to practical exhaustion of the sub-soil moisture. Winter wheat is fully headed, except where dry soil and weather has either delayed heading or checked head emergence.

Weather continues dry and moderately warm, with high daily evaporation interspresed with moderate to low daily evaporation.

GARDEN CITY:

Another dry week has just closed. Rain threatened on several days but only .38 of an inch of moisture was received. That rain came slowly and was followed by a cloudy day so did some good. Winter wheat was revived somewhat by the rain.

The spring small grains are showing the need of moisture. Oats are beginning to head at a height of about 12 inches.

Four plats of rye were turned under for green manure. All remaining fallows were plowed during the week. The second date of planting sorghums was made on the 29th. All surface planted milo and kafir in rotation were also planted on that date. The seedbed for the sorghums was in good condition for planting.

Maximum temperature 95, minimum 45; precipitation .38 inch.

BIG SPRING:

Less than a half-inch of rain, divided up among five showers, has fallen during this month, while the average for May is 2.28 inches. As a result of this shortage of moisture the ground is getting very dry in places.

Big Spring, continued:

With the exception of the late dates, some drilled plats, and the Feterita, the station planting has been completed. Thinning was started in the April 15 date of planting of cotton and sorghums, and the knives were started in an increase block of Sudan. Other work consisted of picking cherries and in cleaning out the orchard. The winter wheat plats in the rotations and the F and G plats in the M. C. series were harvested this week. The rest of the wheat plats will be harvested next week, as they were not ripe at the time the others were cut. It is feared that rather light yields of grain will be obtained.

Maximum temperature 90, minimum 58; precipitation .07 inches.

DALHART:

Cloudy weather has prevailed during most of the past week. Only two days field work were accomplished. On the night of the 25th a good rain was recorded which netted 1.05 inches. The next night another rain was recorded netting 1.25 inches and .05 inch fell after taking the morning reading. This makes a total of 2.35 inches of rain this week. It was said that some hail fell doing considerable damage but further investigation failed to confirm the report. No hail was recorded at the station.

The field work was pretty well caught up before the rains, so that the delay from the field for a few days will not handicap the work. The rain was needed for the wheat and rye. Nearly all of the crops planted last week are up to a good stand. Some increase plantings were made the first of the week. Soil sampling had to be omitted on account of rain.

The time during rains was taken up to good advantage in oiling the harness. After finishing the harness oiling the ground had dried sufficiently to allow for outside work. The time was spent in working on the lawns, mowing, etc., and in hoeing the young crop of weeds out of ornamental plantings.

Mr. E. F. Chilcott arrived Sunday from Tucumcari. He spent the afternoon and night at the station, leaving early Monday morning for Woodward via auto.

Maximum temperature 87, minimum 52; precipitation 2.55 inches.

TUCUMCARI:

Precipitation has been received on seven of the past ten days, making field work almost impossible. On the afternoon and evening of the 26th a very heavy, beating downpour of rain and hail occurred, totaling 2.42 inches. This caused serious washing of all fields and will necessitate replanting all listed increase, which was up to an excellent stand, as well as portions of rotation and variety plats. Torrents washing across some of the early date plats will result in failure of these unless it is possible to select portions of each plat which were not injured. Cotton, which showed perfect stands, was under water two days and much of it was buried by sand.

Most of the variety plats will require some "planting in" and a few may have to be entirely replanted. Cowpeas were badly injured by hail as well as water, as was the cotton. Replanting of all cowpeas will probably be necessary. A steady southwest wind blew yesterday, the 28th, and Thursday, the 27th, and sand began moving immediately, although the fields were so wet that cultivation was impossible. Some injury occurred through burying and cutting by sand, but yesterday afternoon and today cultivators stopped the damage as soon as possible.

Milo and cowpeas in the center field have not been planted and no planting has been done on the north field rotation plats. This will be done early in the week if weather conditions permit. Replanting of cowpeas and all planted increase land will be performed as early as possible.

A small amount of hail has occurred in the past several rains, but this has not caused serious damage to the sorghums or small grains here. However, on the plains, where wheat is the principal crop, many fields have been cut as if with a binder. Almost all fields have been injured to some extent, but it is impossible to estimate the percentage of damage over the entire county. Fortunately almost all wheat farmers carry insurance, and if the local mutual company can handle the loss the damage will be pretty well equalized.

Precipitation this month totals 5.25 inches, with total for the year to date, 10.66 inches. Stands on the station were exceptionally good on all increase, date plats, variety plats, and spacing plats, but in two hours the prospect was radically changed. Farmers will plant listed kafir land which was washed or buried to milo in most cases, considering this safer than kafir when planted so late.

Maximum temperature 86, minimum 51; precipitation 3.02 inches.
Average hourly wind velocity, 5.8 miles per hour.

WOODWARD:

The past week has been hot, dry and windy. Though heavy rains have been reported near here and it has threatened to rain several times, we have only received .17 inch. Some of the early wheat is beginning to ripen and much of the later wheat over the country is beginning to show the effects of the drought.

Two fields of Sunrise kafir have been planted for silage. The apples, cherries and plums have been sprayed the second time, with the exception of a few cherries which will be ripe next week. Corn, cotton and peanuts have been cultivated.

All spring plowing is finished with the exception of a few of the Methods of Fallow. Rye check plats and fallows were plowed this week. Considerable alfalfa has been cut and some of it is put in the barn. Suckers have been removed from the grape vines in both old and new vineyards. Considerable hoeing has been done in vineyard, orchard, fence rows and other places.

Maximum temperature 91, minimum 56; precipitation .17 inch.
Evaporation 2.054 inches. Average hourly wind velocity, 8.2 miles.